DOCUMENT RESUME

ED 242 103 EA 016 669

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TITLE Ego Development and Managerial Effectiveness: Early Findings from Offering Managers Feedback on Loevinger's Ego Development Measure.
PUB DATE [83]
NOTE 33p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Administrator Attitudes; Attitude Measures; Behavior; Beliefs; Bias; Cognitive Structures; Expectation; Humanistic Education; *Job Performance; Managerial Occupations; *Personality Measures; *Psychological Patterns; *Self Concept; Social Attitudes; Student Attitudes; Values
IDENTIFIERS *Loevinger Sentence Completion Test

ABSTRACT

Since 1980, Loevinger's Sentence Completion Test has been used to explore the relationship between ego development and managerial effectiveness in the context of Boston College's Masters of Business Administration (MBA) program. According to the theory of ego development developed by Loevinger and others, most adults either inhabit one of four distinct worldviews or are in transition between them. The four worldviews, in ascending order of maturity, are (1) opportunistic, (2) social, (3) goal-oriented, and (4) integrative. In contrast to the first three, all of which are to some extent blind to opposing worldviews, the integrative worldview recognizes the partial validity of each of the other three. The two most frequent transitions the research has documented are the "analytic"--between social and goal-oriented worldviews--and the "relativistic"--between the goal-oriented and the integrative. Although recent research indicates that persons with relativistic and integrated worldviews make the best managers, most MBA students fall into other categories. The results of individual and group feedback sessions--as illustrated by the detailed presentations in this document of four separate cases involving four different worldviews--tend to confirm the "internal validity" of the Loevinger measure in predicting the relation of worldview to behavior. (JBM)

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EGO DEVELOPMENT AND MANAGERIAL EFFECTIVENESS:

EARLY FINDINGS FROM OFFERING MANAGERS FEEDBACK ON LOEVINGER'S EGO DEVELOPMENT MEASURE

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Background

In the MBA program at Boston College since 1980, we have been studying the relationship between ego development and managerial effectiveness, as part of a long-term assessment project aimed at discovering whether and how changes in the MBA program enhance students' action effectiveness in their later managerial positions. The assessment project as a whole traces students' ego development and their responses to the MBA program at entry each year, at exit, and two years after completion of the program. In addition, the alumni two years out are also invited to participate in five distinct ways of assessing their managerial effectiveness: (1) a questionnaire that establishes the range of their managerial responsibilities (e.g., number of subordinates, budgetary discretion, etc.); (2) a self-assessment of 25 managerial skills; (3) an assessment of the same 25 skills by three or four colleagues on the job; (4) an Executive In-Basket test; and (5) two role plays of simulated managerial dilemmas.

We focus on the mediating variable of ego development because changes in ego stage represent second-order changes, or changes in the very way one frames or interprets dilemmas, changes in worldview (Argyris and Schon, 1974, Watzlawick et al, 1974). First-order change, by contrast, involves learning how to solve a given problem without questioning how the problem is framed. We believe that the capacity to encourage and embrace second-order change, as well as first-order change is a key feature of both institutional managerial effectiveness in the post-industrial era, as well as the source of excellence in Peters and Waterman's (1982) descriptions of excellent companies, and we

wish to test this view through this research.

According to theories of individual and organizational development (Kegan 1982, Torbert 1976), the capacity to appreciate social life as an interaction among multiple worldviews, let alone the capacity to embrace and encourage second order change intentionally, is restricted to a developmentally late worldview that few individuals or organizations in our society currently embody. If this is true, and if this capacity is key to effectiveness, as we contend, then to educate effective managers for the twenty-first century requires an uncharted kind of management education that fosters ego development toward this particular and empirically rare worldview. We are actively experimenting in the Boston College MBA program (Torbert 1981, 1933) to discover what kind of educational organizing appropriately fosters second-order change in students, even as we are testing the validity of the underlying theory, thus inviting continuing second-order change in the school itself.

Purpose and Format

This paper explores whether the measure we are using for ego development, Loevinger's Sentence Completion Test (Loevinger 1976, Loevinger and Wessler 1970), is plausibly and systematically correlated to differences in student-managers' descriptions of their own experiencing and to differences in the ways they act. We begin by describing, first, the theory of "differing managerial worldviews" upon which our research is based,* and second, the previous literature that suggests a relationship between one's worldview and one's managerial effectiveness. The body of the paper then conveys the data we have gained as we have experimented over the past two years with feeding back the Sentence Completion Test (SCT) scores to student/managers requesting such feedback. We offer feedback to our respondents both in the hope that it can contribute to their learning and in order to test whether the themes and the process of these individual and group feedback sessions support or do not support the validity of the SCT scores. Striking patterns emerge, and in conclusion we discuss the likely implications of these patterns for managerial effectiveness.

The Worldviews and Transitions

The analysis of the 36 sentence stems that make up Loevinger's SCT results in identifying a person as "inhabiting" one of several, quite distinct, worldviews. Each of these worldviews represents a qualitatively different way of

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*This theory is a mild adaptation of Jane Loevinger's theory of ego development. We chose to use the concept "differing managerial worldviews" as opposed to differing stages of ego development to emphasize: 1) the importance of understanding the fact that people make different meanings out of the world, 2) the implications of those differences for managing the workplace, and 3) the possibility of moving toward describing each stage or worldview as an "inhabitant" of that worldview might experience it, rather than evaluating each stage as an external social scientist analyzes it.

organizing one's actions and making meaning out of one's experience. Put differently, each of these worldviews deeply influences what a person chooses to see, how he or she interprets what is seen, and how he or she reacts to what is seen. Each worldview is valid in its own right in that it focuses on real phenomena, but frequently a person holding a given worldview is "blind" to (1) what his or her own worldview is, (2) the realities visible to persons holding other worldviews, and (3) the very possibility that people can hold fundamentally different worldviews.

According to the theory and research of Loevinger and others (Kegan 1982, Kohlberg 1969, Lasker 1978), most adults inhabit one of four distinct worldviews, or are in transition from one worldview to another (see Table 1). In briefest summary, these four worldviews can be named "Opportunistic," "Social," "Goal-oriented," and "Integrative." In the "Opportunistic" worldview, the primary phenomenon determining outcomes is adept use of unilateral power. If one is to get one's way, one must "play one's cards close to one's vest" since others are doing the same. In the "Social" worldview, the primary phenomenon determining outcomes is the sentiment of the group(s) one belongs to, as crystallized in group norms about appropriate and inappropriate behavior. Adherence to group norms and leadership in exemplifying or enforcing these norms is seen as the road to approval and happiness. In the "Goal-oriented" worldview, the primary phenomenon determining outcomes is competent execution of a series of rationally interrelated steps leading from the presenting problem to a solution. Conscientious planning and hard work are seen as the necessary elements of accomplishment and success, which are viewed as valuable for their own sake. In the "Integrative" worldview, the primary phenomenon determining outcomes is the ability to resolve intrapersonal, interpersonal,

Table 1

SOME MILESTONES OF EGO DEVELOPMENT

(adapted from Loevinger and Wessler, p. 10)

Worldview	Impulse Control, Character Development	Interpersonal Style	Conscious Preoccupations	Cognitive Style
Presocial		Autistic	Self vs. non-self	
Symbiotic		Symbiotic		
Impulsive	Impulsive, fear of retaliation	Receiving, dependent, exploitive	Bodily feelings, especially sexual and aggressive	Stereotypy, conceptual confusion
Opportunistic*	Fear of being caught, externalizing blame	Wary, manipulative, exploitive	Self-protection, wishes, things, advantage, control	
Social*	Conformity to external rules, shame & guilt for breaking	Belonging, helping, superficial niceness	Appearance, social acceptability, banal feelings, behavior	Conceptual simplicity, stereotypes, cliches
Goal-oriented*	Self-evaluated standards, self-criticism, guilt for consequences, long-term goals and ideals	Intensive, responsible, mutual, concern for communication	Differentiated feelings, motives for behavior, self-respect, achievements, traits, expression	Conceptual complexity, idea of patterning
Integrative*	Add: Coping with conflicting inner needs, toleration	Add: Respect for autonomy	Vividly conveyed feelings, integration of physiological and psychological, psychological causation of behavior, development, role conception, self-fulfillment, self in social context	Increased conceptual complexity, complex patterns, toleration for ambiguity, broad scope, objectivity

NOTE: "Add" means in addition to the description applying to the previous level.

* For starred labels, names have been changed by us.

and political conflicts in defining both ends and means. Tolerance for ambiguity, delight in paradox, and open resolution of differences are prized as essential in creating new shared meanings and norms which motivate work and redefine pleasure. In theory, it is from the perspective of this worldview that an individual becomes cognitively capable of, and emotionally committed to, recognizing and working with people holding different worldviews, as well as willing to embrace and encourage second-order change when circumstances seem to warrant such change.

At its most mature, the "Integrative" worldview recognizes that the other three worldviews tend not to recongize that there can be fundamental differences among worldviews. Consequently, to persons inhabiting these other three worldviews, ambiguity, paradox, and exploration of differences may seem like irritating vagueness, empty, idealistic chatter, and an unproductive waste of time. Indeed, persons inhabiting each worldview will tend to regard persons inhabiting the other worldviews as relatively unrealistic and "uncouth" because they do not sufficiently observe the potency and proprieties of what the given worldview defines as the primary determinant of social outcomes.

In addition to "inhabiting" one of these four worldviews, persons may, at a given time, be in the midst of a transition between two worldviews, and such a transition period may persist for quite a long time. The two transitions that research has documented as occurring most frequently among adults occur between the "Social" and "Goal-oriented" worldviews and between the "Goal-oriented" and "Integrative" worldviews. The first of these we call the "Analytic" transition. Here the person becomes emphatically interested in the inner workings of tasks, persons, and oneself, in "why" things and persons work as they do. The second of these transitions we call the "Relativistic" transition. Here the person becomes keenly aware that there are multiple ways

of valuing, perceiving, and acting, each of which deserves to be cherished, and no one of which is in any obvious or objective sense "right."

The developmental feature of this theory--that there is a natural ordering or progression of these worldviews--has been consistently substantiated. As people grow older, their worldview changes, if at all, in specific and highly determinable order (the order in which they have been introduced above). In addition, each succeeding worldview represents a logically more adequate (Kohlberg 1969) and more complex (Harvey, Hunt and Schroeder 1961) understanding of the world than prior worldviews. As one matures developmentally, one becomes increasingly able to (a) accept responsibility for the consequences of one's actions, (b) empathize with others who hold conflicting or dissimilar worldviews, and (c) tolerate higher levels of stress and ambiguity (Bartunek, Gordon, and Weathersby 1983). Moreover, the person holding a later worldview tends to be more attuned to his own inner feelings and the environment than the person holding an earlier worldview (Loevinger 1976).

Managerial Implications of the Worldview Theory

The foregoing very brief worldview descriptions suggest that managers' worldviews may influence their conceptions of what power is, what types of behavior are appropriate in meetings, how tasks are defined and done, and how conflicts can be resolved.

Early empirical research suggests that persons holding developmentally later worldviews are likely to be more effective as leaders in a wider variety of managerial situations than persons holding developmentally earlier worldviews. The following independent and mutually reinforcing research findings

are the basis for our interest in further testing this proposition and in exploring whether and how management education can encourage the development of later worldviews.

1. According to recent research findings, a manager's orientation to issues of power and conflict in an organization can be differentiated according to different worldviews (Smith 1978). For example, a person holding the "Goal-oriented" worldview tends to be more able to generate power relationships based on collaboration than the manager with an "Opportunistic" or "Social" worldview, who is more likely to try to coerce others to behave in the ways he wants them to. Smith found that managers at the "Analytic" transition tended to be so ambivalent about how to use power than they were frequently indecisive.

2. Another set of research findings has shown that people with high needs for achievement tend to be measured at later worldviews than people with either high needs for control over others or with high needs for generating close relationships (Lasker 1978). Much previous research has shown a strong correlation between high achievement needs and leadership effectiveness (Birney 1968). Hence, again, leaders holding developmentally later worldviews will be more likely to be effective than leaders at developmentally earlier worldviews. The Lasker research also shows a strong correlation between worldview and organizational position in one large enterprise. The greater one's executive authority, the more likely one holds a later worldview.

3. Recent research findings have shown that different leadership behaviors can be ordered along a continuum of less effective to more effective leadership styles (Hall and Thompson 1980). These styles range from highly

autocratic (at lower end of the continuum) to a leadership style able to tap the strengths of others (at the higher end of the continuum). Their research has shown that leaders who have an "Integrative" worldview are more likely to create conditions which support the development of others, than managers with an "Opportunistic" or "Social" worldview.

4. The research of Argyris and Schon (1974, 1978, Argyris 1982, Schon 1982) argues that, especially at higher levels of management, the ability to create and enact strategies to achieve one's purposes (through "single-loop" or first-order learning) is a necessary but not sufficient ingredient of effective leadership. A complementary ability to create and redefine purposes and task structures (through "double-loop" or second-order learning) is also essential to effective management. Given that managers holding the "Integrative" worldview are more likely to have the capacity to question and restructure their own strategies and operations intentionally, then they are more likely to be effective under highly changing, highly ambiguous situations than managers holding more conventional worldviews.

5. Early findings of our current research show that persons scored at the "Relativistic" and "Integrative" worldviews are significantly more likely to act on Executive In-Basket test items with "reframing" or "second-order" responses than are persons scored at the "Analytic" or "Goal-Oriented" worldviews (Fisher and Merron 1983).

If further research such as our continuing project supports the hypothesis that the later worldviews are increasingly conducive to effective management, the task of management education will gain significant new definition. For at present very few individuals inhabit the "Integrative" worldview as

measured by the SCT. For example, in our baseline research, of the initial 237 MBA students who completed the SCT only six score as "Integrative" and only sixteen more score as "Relativistic." The sheer workload and performance pressure in current MBA programs may well make them potent incubators for development from the "Analytic" transition (where 85 of our initial 237 students scored) to the "Goal-oriented" worldview. But it is much less clear whether current management education generally encourages development to the "Integrative" worldview.

Trustworthiness and Relevance of the Loevinger Measure

If the concept of differing managerial worldviews seems likely to shed light on relative managerial effectiveness, then a natural question is: how trustworthy is the Loevinger SCT in diagnosing a person's worldview?

From the point of view of "internal validity," this form of measurement is very trustworthy. That is, two different trained scorers are very likely to reach the same conclusion about the worldview represented by a given set of sentence completions (Loevinger and Wessler 1970). Also, if a given person fills out this form at two different times, both sets of sentence completions are very likely to be scored as representing the same worldview (Redmore, 1976). Even more impressive, experiments have shown that people can almost never succeed in "faking" a different worldview even after the scoring procedure has been explained to them (Redmore 1976). At base, they are still working from their own worldview, and the scoring procedure seems to be well adapted to "picking up" this underlying worldview beneath superficial changes in responses. So, the form seems to be very trustworthy in this respect.

However, there is much less evidence about whether this measurement explains or predicts how a person of a given worldview will behave on a particular occasion in his or her worklife. Indeed, this question is one

that we are asking in the present research. One setting of which we have asked this question is the session at which we offer feedback of the SCT results to those student/managers who request such feedback. We describe our findings below.

The Relation of Worldview to Behavior in Individual and Group Feedback Sessions

To anyone in the BC MBA program taking the SCT, we have given the opportunity of receiving feedback on the results. We offer this feedback with the hope that it might give them insight into their patterns of thinking which we call worldviews. When requested in the feedback session, we also explore the possible implications of holding such a worldview on the subjects' effectiveness as managers.

Since the primary purpose of feedback is to attempt to provide a person with information about himself that he otherwise might not be aware of, the feedback sessions have been both highly exploratory and often revealing. Of the twenty-five individual feedback sessions and three group feedback sessions (for seventeen persons) we have done to date,* the general responses to the feedback (as determined by our observations during the beedback session itself and at follow-up meetings two weeks after the initial feedback session) have been overwhelmingly positive in that the participants have: (1) found some aspects of their "self" illuminated that heretofore had been unknown or unexplored by them; (2) confirmed their present view of themselves; and (3) begun to explain some of the interactional dynamics they have been involved

*Since the original version of this paper, we have offered feedback to an additional 20 persons. The results generally support the data to be offered below, although they have yet to be analyzed in detail.

in at their place of work. Twenty-three of the twenty-five persons receiving individual feedback correctly predicted their SCT score after reading page-long descriptions of each worldview. During or after the feedback sessions, two of the twenty-five persons receiving feedback individually reported significant negative, as well as positive, reactions to the feedback. The two instances are described in the following pages, first in the global assessments of all the feedback sessions immediately below and second in the more detailed analysis of individual sessions.

Several global facts about the feedback sessions seem to validate the SCT scores of respondents' worldviews, as well as to substantiate a relationship between worldview and behavior. First, developmental theory suggests that persons holding more evolved worldviews ("Goal-oriented" and beyond) are more likely to seek out potentially disconfirming information in order ultimately to achieve some goal or to grow; whereas persons holding earlier worldviews are less likely to seek out potentially disconfirming data and more likely to have difficulty "digesting" such data if they do receive it. Although more than one-half of all our respondents to date have scored as holding the "Analytic" worldview or prior worldviews, and although only 10 percent have scored as holding the "Relativistic" worldview or the "Integrative" worldview, of the twenty-five respondents who have individually sought feedback only five were measured at the "Analytic" worldview while thirteen measured as holding "Relativistic" or "Integrative" worldviews. The number of cases is far too small to permit any confident conlusion, but the findings are certainly consistent with theoretical expectation.

In the second place, four of the five respondents who scored as holding the "Analytic" worldview and who sought feedback are the only people who have

had significant difficulties understanding the theory and digesting the implications. Moreover, two of these four are the only two to show significant negative reactions to the feedback.

A third pattern that supports the validity of the SCT scores of worldview is that, of the 25 respondents receiving individual feedback, almost all scored at a stable worldview (e.g., "Goal-oriented" or "Self-defining") tended to be relaxed in the feedback session, moderately interested, and tended to lead the conversation either toward confirming the wisdom of their worldview or toward discussing a particular, well-defined problem; by contrast, most respondents scored at the "Analytic" or "Relativistic" transition between worldviews were more anxious and excited during the feedback session, intensely concerned, and wanted to use the language of the worldview theory to help them define and perhaps resolve a global sense of painful confusion they were experiencing. This pattern invites the interpretation that respondents scored by the SCT as at transitions between stages did in fact experience themselves as without a coherent worldview.

These data are obviously qualitative in nature and based on a very small number, and it is conceivable that the researchers somehow systematically influenced the quality of the sessions, since we knew the scores beforehand and what they were "supposed to mean." On the other hand, we ourselves were astonished by the finding, and we did study tapes of each session without being able to identify any ways in which our behavior seemed to be creating the differences in atmosphere. (The senior author has developed reliability levels of above .8 in the use of two different, complex behavior scoring systems in the past (Argyris 1965, Torbert 1973), each of which identifies whether a person is unilaterally manipulating an environment). So the finding

is qualitative in a disciplined sense, and we do not find any evidence of systematic influence on our parts.

A fourth and final global finding which points toward a relationship between SCT score of worldview and managerial behavior emerges from the day-long group feedback sessions we offer alumni. These workshops include feedback on peer assessments of effectiveness, on Executive In-Basket performance, and on role plays of managerial meetings, as well as the SCT feedback. By chance, the "ego demographics" of two of the workshops differed greatly: of the six participants in one workshop, four scored at the "Analytic" transition and two at the "Goal-oriented" worldview; of the five participants in the other workshop, two scored at the "Goal-oriented," two scored at the "Relativistic" transition and one scored at the "Integrative" worldview. Both workshops received strongly positive evaluations from participants at their conclusion, but the workshop leaders observed major differences between them.

In the workshop with a majority of "Relativistic" and "Self-defining" participants, members began to explore the underlying logic of the measures by mid-morning and to ask how one can act in business settings to diagnose and resolve "meta-problems"--the underlying causes of a series of problems, not just the surface symptoms of any one problem. This conversation built throughout the day, continuing through breaks and over lunch, even though the workshop leaders made no efforts to "stay on task" during the informal periods.

By contrast, in the workshop with four "Analytic" participants and no participants beyond the "Goal-oriented" worldview, members were more prone to dismiss the measures on the basis of surface differences between the measurement situation and their on-the-job setting. For example, they focused on the fact

that the "in-basket" test is based on not-for-profit community fund management rather than on a for-profit business. Rather than exploring the meaning of the measures, the "Analytic" participants in particular tended simply to state that they saw little meaning, without questioning further. Thus, for example, in response to whether his SCT portra[illegible]emed appropriate to him, one "Analytic" member said:

C: "It's close but..."

Researcher: "Yeah, you might have gotten another two pages saying something else?"

C: "No, I just don't know what difference it makes."

In this workshop (which was the second of the two), the issues of underlying causes and meta-problems never took hold, even though the workshop leaders raised them several times. Nor did the conversation as a whole build thematically throughout the day. At breaks and at lunch, participants chose non-workshop topics to discuss in small sub-groups, even though the workshop leaders made several mild efforts to relate the conversations to workshop issues.

Although the leaders' efforts in these particular instances had no influence, they did serve to support our belief that we were not causing the differences between the two workshops which we have just reported. Instead, it seems plausible to hypothesize that the difference in ego demographics is responsible, since the interest in exploring behind surface patterns for underlying principles is theoretically supposed to characterize persons increasingly in the "Relativistic" transition and at the "Integrative" worldview, but not at the earlier "Analytic" transition.

Closer Analysis of Individual Sessions

Having examined some of the global differences in behavior during both individual and group feedback sessions of people scored at different worldviews by Loevinger's SCT, we can now look more microscopically at behavioral differences among the four levels for which we have data--the "Analytic," the "Goal-oriented," the "Relativistic," and the "Integrative."

Before presenting these cases, a brief ethical-methodological point is relevant. We would not have been willing or able to discuss the variety of topics touched on in these cases if we did not know the respondents well from frequent contact in our daily roles in the Boston College MBA program. The fact that we formally set up a follow-up conversation two weeks after each feedback session, along with the fact that we had continuing informal contact with each respondent, gave us confidence that we could reach closure on any issue opened with a respondent. We would regard it as unethical for researchers to raise significant issues with respondents unless they are prepared to take the responsibility of maintaining contact through closure.

The first detailed case we offer is one of the two difficult individual feedback sessions mentioned earlier with a respondent scored at the transitional "Analytic" worldview, whom we shall here name "Gene." At the outset of his session, Gene quickly verified that from his own point of view he was in the midst of a major transition, precipitated, as he saw it, by the MBA program as a whole. He said that he had entered the MBA program with a strong orientation to working in teams and helping others, but that he was increasingly realizing that the people who got the best grades were basically out for themselves. He interpreted the difference between the "Social" worldview and the "Goal-oriented" worldview as the difference between concern for others and

selfish goal-maximization. The researchers twice suggested that persons have different conceptions of both self and other at the two worldviews and that persons holding each worldview might well be "concerned for others" but mean different things by that phrase. But although the idea was discussed it didn't "catch," for two weeks later the respondent again characterized the differences between the "Social" worldview and the "Goal-oriented" worldview as the difference between altruism and selfishness.

In a further effort to clarify the distinction between task or goal-orientedness, on the one hand, and selfishness, on the other hand, one researcher used the example of a project he and the respondent were working on in the MBA program. The respondent had not produced a certain product by an agreed-upon date, as part of the larger project, and had not spoken about the matter, though the researcher knew through a third party that the respondent felt incapable of doing the task but did not want to "disappoint" the researcher. The researcher reviewed these points and suggested that the respondent's "paralysis" might be sympomatic and symbolic of a transition between value systems, with a typical "Goal-oriented" task-orientation in conflict with a "Social" person's desire to be nice, to "look good" in public, and not to disappoint others. Moreover, insofar as the researcher was concerned to complete the task, the respondent's decision to date not to discuss this problem could be interpreted as more selfish (to avoid possible negative feelings directed toward him) than concerned with the other's need (to solve the problem and complete the task).

The respondent seemed to understand the sense of these interpretations and to see the way in which a person holding a "Social" worldview and a person holding a "Goal-oriented" worldview differently define "self," "other,"

and "obligation." The respondent was embarrassed by the "revelation" of this example, but the two together redesigned the project, and the respondent left the initial feedback session apparently relieved to have gotten by the difficulty and apparently reassured that the researcher did not regard this one "failure" as characteristic.

At the follow-up conversation two weeks later, however, the respondent was clearly hurt, angry, and resentful. In his reconstruction of the feedback session, the researchers had attacked him and his value-system throughout the session, advocating selfishness rather than concern for others, and blowing up a very minor issue of timing into an attack on his very being. He further said that he had decided to approach the MBA program more cynically hereafter and just treat it "as a job to be done" rather than caring for the other people. Each of his reconstructions seemed to come from his own point of view, indicating an inability to see how the "Goal-oriented" stance may not be "selfish" and purely "task-oriented." These comments prompted the researcher who had opened the project-issue to respond with hurt and anger that his efforts to extend himself toward the respondent should be so mistaken and devalued. This cathartic opening led into a long conversation reviewing numerous recent incidents in which the respondent's wish to please others and wish to perform well had generated painful knots for him. After this session, the respondent showed no further evidence of ambivalence toward the researcher or other aspects of the MBA program for the remainder of the academic year.

As a whole, then, this double conversation illustrates the confusions and ambivalence of transition between stages. It also illustrates confusions about selfishness and altruism apposite to the particular transition between the "Social" worldview and the "Goal-oriented" worldview. Moreover, the difficulty

that this and other respondents holding the "Analytic" worldview experienced in digesting feedback appears consistent with SCT scores. We interpreted this experience as a strong warning about the difficulty of offering feedback to respondents measured at the worldviews and transitions prior to the "Goal-oriented" worldview.

Since then, when asked to provide feedback for such respondents, we are increasingly adopting the practice of not offering detailed analysis, illustration, or comparisons among worldviews unless the respondent directly asks for such. In other words, we are becoming increasingly sensitive to the possibility that a general request for feedback means different things to the different persons making the request. Now, rather than plunging into the work-related incident with "Gene" because it seemed such an apt illustration, we might simply identify our difficulty understanding one another, leaving the choice to the respondent whether to struggle further with the issue together. As we have already illustrated in the workshop discussion with the "Analytic" sub-group, "Analytic" respondents tend to choose not to inquire further.

In a feedback session with a student (Barbara) whose SCT was scored as reflecting the "Goal-oriented" worldview, we fit together some sentence fragments with some information we knew about the student to infer some information regarding an issue that had been a recurring one, but one that she had not been able to resolve. This issue was a fear of speaking in front of large groups and the risk associated with just trying. She was afraid that her ideas would come out so garbled and incoherent that she would not express herself clearly. But, we might ask, why doesn't she just try and take the chance? What's to lose? If she doesn't try and practice speaking in front

of a large group, how will she ever develop the skill and thus the confidence that is required of a competent public speaker? Unfortunately, like any risk that is threatening, it is not that easy, especially for someone who wants to do one's best (typical for a person holding the "Goal-oriented" worldview). Risk means possible failure and failure is just the thing that the conscientious person finds abhorrent. The "Goal-oriented" person may dig her own developmental grave, for the fear of failure associated with speaking before large groups rendered the student incapable of acquiring the skills needed to become a competent speaker and resolve her dilemma.

Throughout the feedback session, Barbara seemed very calm, somewhat introspective, and found the opportunity for discussing herself a welcome diversion from typical school activities. She seemed to exude the sense of settledness typical of a person well-embedded in her stage of development. For example, when the possibility of taking behavioral risks was discussed, Barbara seemed both conceptually interested in the possibility and yet not drawn toward action. She seemed fairly content with the feedback to her, open to hearing more, yet never challenged by it. Any suggestion of ways of transcending her public speaking problem seemed to be parried with a response such as "that's an interesting idea," or "I would never do anything like that, it's not me." This was in marked contrast to Gene and to Sarah (whom we will meet next) both of whom were rated at a transition between worldviews.

Another expression of the "Goal-oriented" worldview comes from a subgroup meeting with alumni measured as holding this worldview at one of the day-long feedback workshops. This group focused on how they were particularly conscientious as managers and often felt frustrated that others did not act in responsible ways--did not take initiative, did not do the work assigned, were

not sensitive to problems in communicating with others. These "Goal-oriented" managers' appreciation for the difficult human relations aspects of the work-place and their frustration with those not responding to these challenges had the flavor of "I understand where others are at, but why can't they be more effective and efficient like me." Thus, we see a partial ability to step into the shoes of another, but not yet the ability to recognize wholly differing worldviews, nor the ability to resolve tensions among worldviews.

Aside from information regarding one's worldview, the SCT gives other impressions about the student/manager. It reveals some of the issues that the person is dealing with, what situations cause anxiety, and how the person relates to others. By focusing on certain of the sentence stems such as "when they avoided me," "I am embarrassed when," "when I am nervous I," or "when I am criticized," we can get an impression of how the student deals with pressure of discomforting experiences. On the other hand, by focusing on the sentence stems "I am," "the thing I like about myself is," we get a sense of a person's self-concept. We also get impressions of the student by connecting certain pieces of information together. For example, when looking at all the feeling states expressed by one student (Sarah, measured at the "Relativistic" transition), we found the following words: enviable, rejected, invigorating, boring, joy, worry, scared, happier, confident, at ease, caring, struggle, frustrated. Notice the contrast between the positive and negative: joy, happy, at ease invigorating versus worry, scared, struggle, frustrated.

Having been closely associated with Sarah for a couple of years and knowing her personally, we were able to relate these responses to our impressions of her and discuss them. We found that the strong feelings resulted from the pressures of schoolwork compounded by troubles with her boyfriend, both of which left her in a depressive state. Doing one's best is typically

still an issue for a person at the "Relativistic" transition, so it is understandable how schoolwork (especially a heavy load) could become pressure-inducing. Furthermore, consistent with her conscientiousness, Sarah took on a great deal of work outside of her schoolwork--she worked 20 hours per week in a part-time research position. This pressure she felt was somewhat self-induced, a bind that the conscientious person creates, and a bind that the person in a transition between the "Goal-oriented" worldview and the "Integrative" worldview wants out of. To Sarah, perhaps, the consciousness is no longer an adequate way of being. Could the depression be, in part, compounded by a desire for a more adequate, more integrated way of being in the world? Put differently, is the depression a reflection of the possibility that being in a transition between two stages of development she does not have one firm and clear meaning making system such that she has difficulty making sense of the world?* These are not just theoretical questions, however, but questions to be discussed with Sarah herself.

In contrast to Barbara's response to the feedback, in her session Sarah continuously probed and questioned her own behavior. She very quickly confirmed our impressions of her depression, stating she had just recently sought therapy and wanted to move on to the question: "What do I do to get out of it?" The strength of such a question combined with the realization that having overly high expectations of herself was not the answer, but perhaps a major cause of the problem indicated that she was searching for a different way of dealing with her work than she had in the past. This search for a different way (perhaps a different meaning making system) was consistent

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*Robert Kegan in his book, The Evolving Self (1982), has related depression to transitions between stages. Hence, this seems to be a plausible hypothesis.

with our rating of her protocol at a transitional phase between the "Goal-oriented" and "Self-defining" worldviews.

In summary, in the feedback sessions with both Gene and Sarah who were scored at transitional phases, their responses to our feedback indicated that each was searching for different ways of handling the issues they were facing. Each, however, handled the feedback differently. Gene, whose response to the researchers' suggestions represented a fundamental gap between the way the researchers understood the situation and the way Gene reconstructed their feedback session, illustrated his fundamental difficulty in seeing the problem from another's point of view. This was consistent with our pre-"Goal-oriented" rating of his SCT responses. Sarah, on the other hand, had a sensitive appreciation for her own dilemma, the inadequacy of her existential stance to her work, and an expressed desire to search alternate conceptions of the situation, all of this consistent with the post-"Goal-oriented" rating of her SCT responses.

Another view of issues felt at the "Relativistic" transition comes from a subgroup meeting at one of the day-long feedback workshops with two alumni scored at this worldview. In this session both persons responded to a one-page written "worldview portrait" before the leader said anything. One quoted the sentence in the portrait, "The person is reflective and often puzzled due to the simultaneous prevalence of many points of view," and exclaimed: "I can see all sides to the point where it drives me up a wall!" The second person reached the phrases in the portrait, "Principles rather than rules are guides to choice...respect for the importance of due process is an example of such a principle," and commented that he had just been discussing the lack of due process in his company the previous week. He also said that recently he had found himself more and more concerned with questions

of principle; not just with regard to justice and morality, but with regard to the possibility of a science of human nature. He had been reading in the new discipline of sociobiology and said that, in his opinion, understanding these principles of human nature would be more important than conventional forms of power in transforming the United Nations into a constructive force in worldaffairs. Over and above the content of these various comments, we see small ways in which the SCT score relates to behavior: (1) in the initiative of these two persons to start the conversation; (2) in the humorous tone and emotional expressiveness of the first comment; and (3) in the global espousals of idealism conveyed by the second person.

The final discussion to be reviewed involved one workshop leader and the person assessed as holding the "Self-defining" worldview in the workshop mentioned earlier that developed the continuing conversation throughout the day. In this discussion, the alumnus responded to the suggestion made earlier in the introduction to the worldviews portion of the workshop that people who hold the "Integrative" worldview tend not to be fully appreciated or understood by others and may feel out of place at work. This person seized upon this idea and said that he felt particularly alone in his work. When asked, "To what do you attribute this?" he indicated that he made a lot of suggestions about how to help his department run more effectively, but that these were rarely considered fully. He also said that he found himself frustrated at times because he is a creative person stuck in a financial analyst's job. He felt that others rarely understood his position or viewpoint in meetings. At the same time, he felt that he <u>often</u> understood the viewpoint of others.

The discussion with this participant slowly transformed from an emphasis on the difficulties of holding the "Integrative" worldview to the unique

opportunities such a person has to transform the workplace and help it run more effectively. The workshop leader pointed out that the worldview theory explains how people holding later worldviews tend to be able to understand and appreciate earlier worldviews, yet not vice-versa. Given that this might be operating in Mark's case, the workshop leader suggested that Mark could use his skills in understanding the views of others to mediate between conflicts other people have with each other. Rather than impose his viewpoint on others (as most people typically do in conflict situations) Mark might help others bridge the gap between their differing points of view by pointing out possible areas of convergence, thus serving as a catalyst for others' learning. How to do this is a difficult question--one that could not be explored fully, given the time constraints of the workshop--yet a question which lit up Mark's hopes for finding more adequate ways of being in his workplace and added levity to what heretofore had been a burdensome feeling of being misunderstood. Indeed, the workshop itself illustrated this participant's capacity to play a catalytic role, for he, more than any other participant, had returned again and again to the question "How can we help people see the relevance of addressing 'meta-problems'?" In so doing, he was singularly responsible for the thematic, building quality that characterized that particular workshop as a whole.

Conclusion

In the foregoing pages, we have shown how both individual and group feedback sessions can focus on Loevinger's Sentence Completion Test as a measure of ego development and of differing worldviews. At the same time, we have examined a number of ways in which these feedback sessions provide opportunities to relate the SCT score to a person's behavior. First, the feedback sessions show the extent to which the subjects themselves agree that they hold the worldview diagnosed by the SCT. Second, content analysis shows whether the themes discussed in the feedback sessions and the way these themes are discussed reflect the worldview diagnosed by the SCT. Third, process analysis indicates whether the subjects' patterns of action during the feedback session (and in choosing whether to seek feedback in the first place) reflect the worldview diagnosed by the SCT. In all three of these ways we have found strong and consistent relationships among respondents measured worldviews, their reflections about themselves, and their ways of acting during the feedback sessions.

The number of cases is far too small to permit confident conclusions. Moreover, we have not yet completed analysis of how the worldview scores relate to performance on the Executive In-Basket Test and the other more directly managerial variables being measured in our overall assessment project. Nevertheless, the coherent way in which our quantitative and clinical data intertwine in this sub-study suggest that even "small," half-stage differences in developmental posture result in significant behavioral differences among respondents. And when we look across the full-stage distance between student-managers measured at the "Analytic" worldview and those measured at the "Relativistic" and "Integrative" worldview, we note

truly dramatic differences between the lack of inclination among the former to seek feedback and their difficulty in digesting it, as contrasted with the initiatives of the latter to seek feedback, to explore its meaning in conversation with others, and to define generic problems to act on rather than treating symptoms at face value.

The managerial implications seem clear: in complex, ambiguous, rapidly changing settings, populated by people of varying worldviews, those willing to acknowledge the variety of worldviews and to adjust their actions based on continuing efforts to seek and make meaning of feedback are more likely to be effective managers than those who are unaware of worldview differences, fundamentally wary of feedback, and unlikely to explore beyond presenting symptoms to underlying causes.

The broadest outlines of the institutional implications of this research seem equally clear. If the "Integrative" worldview is most conducive to effective management; if very few people hold this worldview when they initially enter management; and if full-stage changes are long-term processes (we guess on the order of four years when change is not blocked); then businesses, government agencies, and other not-for-profit organizations can achieve effective management, not by using some new selection instrument or off-site training program, but only by creating on-line conditions which foster personal development and second-order inquiry about the business at hand among employees who wish to advance or who already share responsibility for the enterprise as a whole.

Whether these managerial and institutional implications are in fact true, and in what particular ways, are the subjects of our continuing research. We also hope to learn what educational dynamics in fact help managers to engage in second-order learning and to become increasingly effective in action.

Changing worldviews may turn out to be part of the process of becoming more effective for some. But here some final words of caution are in order about making meaning from feedback one receives on the Loevinger Sentence Completion Test. Suppose that, upon reflection, a person scored as inhabiting one worldview comes to agree that this worldview does characterize his or her ordinary assumptions about social life. And suppose that this person also comes to believe that another worldview actually will result in more effective management. Should this person try to change and adopt the other worldview? It may seem all too obvious that the only possible sensible answer is "Yes." Why continue holding a worldview whose limitations one has begun to see, when one has been introduced to another worldview which appears more promising? The problem with jumping to this conclusion and trying to enact another worldview at work is that this effort may seem to one's associates like "faking." Thus, one's associates may continue to ascribe to one all of the infelicities of one's original worldview, as well as the additional infelicity of behaving out of character, of acting inauthentically. Moreover, since one's worldview is circular and self-confirming (as is well illustrated by "Gene" in this paper), one may very well end up rhetorically advocating a new worldview while actually enacting one's ongoing worldview, thus inviting the charge of inauthenticity from another angle. Consequently, the manager attempting to become increasingly effective by exploring a new worldview may be deemed by others even less effective than before.

This possible "catch-22" re-emphasizes the parallelism of managerial and institutional second-order change. All of the dangers just mentioned assume an (empirically common) institutional setting in which one's colleagues and the reward structures are not attuned to nurturing second-order change--not attuned to confronting apparent incongruities in an inquiring fashion. Both on ethical and on

practical grounds, any attempt to study or to nurture second-order change in individuals, even on as small a scale as the feedback sessions we describe in this paper, would seem to require a parallel commitment to making the institutional process open to second-order inquiry. We hope that this article invites such inquiry.

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